

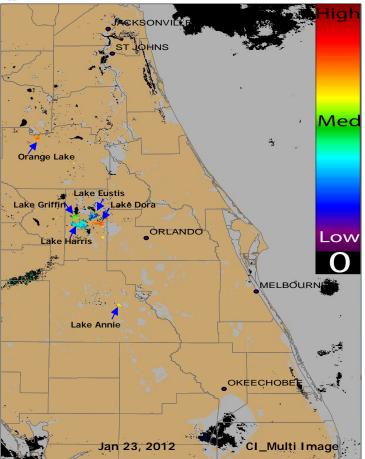
Experimental Cyanobacteria Health Bulletin: Jan. 23, 2012





To report an illness related to a marine toxin or algal bloom please contact the Florida Poison Information Center-Miami Aquatic Toxins Hotline at 1-888-232-8635.

For questions about the report: please contact Becky Lazensky, FL-DOH, at 352-955-1900. Images/data were obtained from Florida Water Management Districts, The National Oceanic and Atmospheric Administration (NOAA), NOAA National Climatic Data Centers and National Weather Centers. Support to produce this report was received through a NOAA/NASA Agreement (Number: NNH08ZDA001N)



The MERIS Satellite Images above display a cyanobacteria index generated with a Medium Resolution Imaging Spectrometer (MERIS) satellite provided by the European Space Agency & NOAA.

If your agency has field sampling data on the regions shown in red, these data can be used to help validate the MERIS imagery. Contact Becky Lazensky at: 352-955-1900

Very low likelihood of a bloom

to participate in future FDOH validation efforts.

- May indicate clouds or missing dataLow cyanobacteria concentrations
- Medium cyanobacteria concentrations
- Probable bloom or higher cyanobacteria concentrations

CyanoHabs Conditions Report: Jan. 23

- Much of FL was blocked by cloud coverage and was not visible in the satellite imagery-grey indicates cloud cover.
- Lakes Dora, Eustis, Harris, and Griffin (Lake County) displayed lowhigh elevated estimated cyanobacteria concentrations.
- Annie Lake (Highlands County) displayed medium to highly elevated estimated concentrations.
- Orange Lake (Marion and Alachua Counties) displayed highly elevated estimated concentrations.

Lake Dora, Eustis, Griffin, and Harris



Annie Lake



Orange Lake



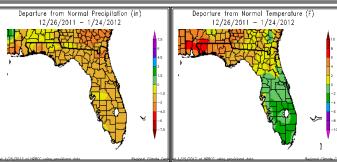
Final Chance to Take Survey to Evaluate the Satellite Health Bulletins Becky Lazensky, MPH

- In an effort to improve the format and content of the satellite health bulletins, an electronic survey was created to gather your feedback and evaluate the satellite health bulletin's usefulness.
 Completing the survey should take 5-10 minutes.
- We will use the feedback received to improve the format of the satellite health bulletins and provide content that fits the needs of users.

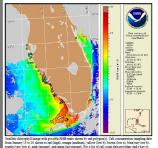


 Click Here to Access the Survey: http://www.surveymonkey.com/s/PHH8PLZ





Non CyanoHABs & Health Report-K. brevis Bloom: January 26, 2012 Update



Gulf of Mexico Harmful Algal Bloom Bulletin Region: SW Florida Date: January 23, 2012 NOAA Ocean Service, NOAA Satellite and Information Service,

NOAA National Weather Service

Confirmed Species: Karenia brevis

Bloom Boundaries (FWRI/FWC): *K. brevis* was detected in water samples collected offshore and south of Cape Sable (Monroe County). Concentrations from medium to very low. One sample collected this week at Goodland Bridge (southern Collier County) also had very low concentrations of *K. brevis. K.* brevis was not detected in water samples analyzed alongshore of Pinellas, Hillsborough, Manatee, Charlotte, Sarasota and Lee counties, in the Indian River Lagoon (Brevard County) or alongshore of Levy, Flagler and St. Johns counties (FWRI/FWC).

To Report a Fish Kill: Call the FWRI/FWC Fish Kill Hotline at: 1-800-636-0511 **Visit FWRI/FWC for Updates:**

http://myfwc.com/research/redtide/events/status/

Interpreting Medium Resolution Imaging Spectrometer Satellite Imagery



- The medium resolution imaging spectrometer (MERIS) is located on the Envisat satellite deployed by the European Space Agency.
- The cyanobacterial index
 algorithm shown in this report is designed to identify high biomass algal blooms caused by

cyanobacteria. However, the current algorithm tends to have false positives, so other blooms may be "flagged". NOAA is currently testing new algorithms that are more specific to cyanobacteria.

- Data can be used to estimate near surface cyanobacteria concentrations which are an indication that algal blooms may be present.
- The mathematical algorithms used to generate the satellite images can vary, resulting in some models having a higher likelihood of detecting surface blooms.
- While patches of red or warm colors may indicate a bloom, these data have not been verified in most cases using ground-truth methods. Data collected by the satellite is considered experimental.
- Only portions of Florida are in the satellite's current coverage area.

- Several environmental factors may affect how results can be interpreted. For example, areas with abundant aquatic plant vegetation may present with a high cyanobacteria index on the color spectrum, resulting in a false positive bloom reading.
- The satellite identifies the biomass near the surface (in the upper few feet of water). As a result, it may underestimate the total biomass for blooms that are mixed or dispersed through the water column. Turbidity does not otherwise influence the algorithms. The satellite imagery does not display the species of algae present.
- Cloud coverage can obscure imagery and create patches or gray areas on map and obscure bloom detection.
- Weather conditions can impact the duration and location of blooms and the satellite imagery shown in this report may no longer be relevant.
 Images represent the last image taken with a realization that blooms may have moved, dissipated or intensified.

To review HABs satellite reports in the Gulf of Mexico and marine waters visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive at: http://tidesandcurrents.noaa.gov/hab/bulletins.html



For Individual Weather Station Data Visit:

http://www.sercc.com/climateinfo/historical historical_fl.html Questions about the report or suggestions: You can contact Becky Lazensky, MPH 352-955-1900 Becky_Lazensky@doh.state.fl.us